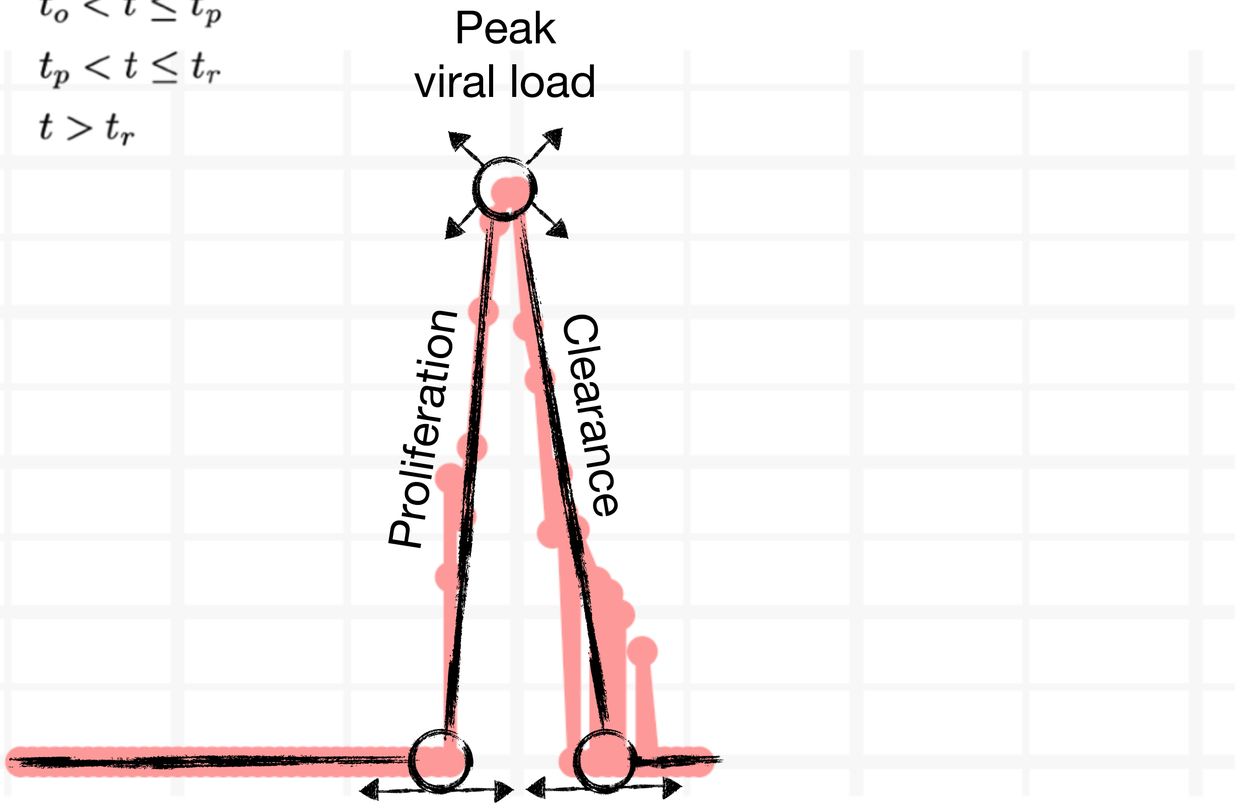
Modeling viral kinetics

$$E[Ct(t)] = \begin{cases} \text{l.o.d.} & t \leq t_o \\ \text{l.o.d.} - \frac{\delta}{t_p - t_o}(t - t_o) & t_o < t \leq t_p \\ \text{l.o.d.} - \delta + \frac{\delta}{t_r - t_p}(t - t_p) & t_p < t \leq t_r \\ \text{l.o.d.} & t > t_r \end{cases}$$



Modeling viral kinetics

$$\frac{dT}{dt} = -\beta VT - \Phi IT + \rho R$$

$$\frac{dR}{dt} = \Phi IT - \rho R$$

$$\frac{dE}{dt} = \beta VT - kE$$

$$\frac{dI}{dt} = kE - \delta I$$

$$\frac{dV}{dt} = \pi I - cV,$$

Ke *et al.* (2021), PNAS